

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A system for making a leavened food product from a dough having a leavening agent that can produce carbon dioxide, the system comprising:
a carbon dioxide sensor for detecting carbon dioxide produced by the leavening agent and for providing an output indicative of the carbon dioxide produced; and
a monitor connected to the carbon dioxide sensor for providing a signal based on input from the carbon dioxide sensor, where the signal indicates ~~at least one of (a)~~ a cumulative amount of carbon dioxide produced and ~~(b)~~ a rate of carbon dioxide production.

Claims 2 and 3 (Previously Cancelled).

4. (Currently amended) A system ~~as set forth in claim 1, further~~ for making a leavened food product from a dough having a leavening agent that can produce carbon dioxide, the system comprising:
a carbon dioxide sensor for detecting carbon dioxide produced by the leavening agent and for providing an output indicative of the carbon dioxide produced;
a monitor connected to the carbon dioxide sensor for providing a signal based on input from the carbon dioxide sensor, where the signal indicates at least one of (a) a cumulative amount of carbon dioxide produced and (b) a rate of carbon dioxide production; and
a container within which the dough is placed, the carbon dioxide sensor being exposed to the atmosphere within the container.

5. (Previously Amended) A system as set forth in claim 4, wherein the carbon dioxide sensor is mounted within the container.

6. (Original) A system as set forth in claim 4, further comprising a temperature sensor connected to the container for measuring the temperature in the container and for providing an output indicative of the temperature.

7. (Previously Amended) A system as set forth in claim 6, wherein the temperature sensor is connect to an indicator for providing an output in response to the input from the temperature sensor.

8. (Previously Amended) A system as set forth in claim 6, wherein the temperature sensor is selected from a group that included a thermometer, a thermocouple, a thermistor, and an infrared (IR) detector.

Claims 9-11 (Previously Cancelled).

12. (Original) A system as set forth in claim 4, wherein the container includes an oven.

13. (Original) A system as set forth in claim 4, wherein the container includes a proofing oven.

14. (Previously Amended) A system for making a leavened food product from a dough having a leavening agent that can produce carbon dioxide, the system comprising:
a carbon dioxide sensor for detecting carbon dioxide that outputs a signal indicative of the carbon dioxide produced; and
a monitor connected to the carbon dioxide sensor,
wherein the monitor includes an indicator for providing an output based on input from the carbon dioxide sensor and a controller interconnecting the carbon dioxide sensor and the indicator, the controller controlling the indicator in response to data received from the carbon dioxide sensor.

15. (Previously Amended) A system as set forth in claim 14, further comprising a temperature sensor connectable to the controller and a temperature regulator that regulates the temperature connected to and controlled by the controller, the controller controlling the temperature regulator in response to data received from the carbon dioxide sensor and the temperature sensor.

16. (Previously Amended) A system as set forth in claim 14, further comprising a humidity sensor connectable to the controller and a humidity regulator that regulates the humidity connected to and controlled by the controller, the controller the humidity regulator in response to data received from the carbon dioxide sensor and the humidity sensor.

17. (Original) A system as set forth in claim 14, wherein the controller includes a digital signal processor.

18. (Original) A system as set forth in claim 14, wherein the controller controls the time and the temperature for baking the dough to produce the leavened food product based on input from the carbon dioxide sensor.

Claims 19-21 (Previously cancelled).

22. (Previously Amended) A system for making a leavened food product from a dough having a leavening agent that can produce carbon dioxide, the system comprising:
means for monitoring the carbon dioxide produced by the leavening agent and outputting a signal indicative of at least one of (a) cumulative amount of carbon dioxide produced and (b) a rate of carbon dioxide production; and
means for providing an output based on input from the means for monitoring.

23. (Original) A system as set forth in claim 22, wherein the means for providing includes means for analyzing the input from the means for monitoring.

24. (Previously Amended) A system for making a leavened food product from a dough having a leavening agent that can produce carbon dioxide, the system comprising:

means for monitoring the carbon dioxide produced by the leavening agent and outputting a signal indicative of the carbon dioxide produced; and

means for providing an output based on input from the means for monitoring that includes means for analyzing the input from the means for monitoring;

wherein the means for analyzing includes means for identifying a transition from an active stage of carbon dioxide production to a stable stage of carbon dioxide production.

25. (Previously presented) A system as set forth in claim 14, wherein the monitor is configured to provide an indication of a cumulative amount of carbon dioxide produced.

26. (Previously presented) A system as set forth in claim 14, wherein the monitor is configured to provide an indication of the rate of carbon dioxide production.

27. (New) A system for making a leavened food product from a dough having a leavening agent that can produce carbon dioxide, the system comprising:

a carbon dioxide sensor for detecting carbon dioxide produced by the leavening agent and for providing an output indicative of the carbon dioxide produced; and

a monitor connected to the carbon dioxide sensor for providing a signal based on input from the carbon dioxide sensor, where the signal indicates a rate of carbon dioxide production.